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Subject: REVISED TO REPLACE EARLIER COMMENTS:  
Environmental Defense comments on  
2,4-Dichlorophenol, Sodium Salt (CAS # 3757-76-4)

(Submitted via Internet 3/24/06 to [oppt.ncic@epa.gov](mailto:oppt.ncic@epa.gov), [hpv.chemrtk@epa.gov](mailto:hpv.chemrtk@epa.gov),  
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Environmental Defense appreciates this opportunity to submit comments on the robust summary/test plan for **2,4-Dichlorophenol, Sodium Salt (CAS # 3757-76-4)**.

The Dow Chemical Company, in response to EPA's High Production Volume (HPV) Chemical Challenge, has submitted robust summaries and a test plan for the broad leaf herbicide, 2,4-dichlorophenol, sodium salt.

2, 4-Dichlorophenol is a synthetic precursor to the broad leaf herbicide 2, 4-D, which is widely used in agriculture, on residential and municipal lawns and on golf courses and public parks. Because of its use in the synthesis of 2, 4-D and other high production volume chemicals, 2, 4-dichlorophenol is produced and can be released into the environment in very significant quantities. It is not stated, but it is reasonable to assume, that it is among the "inert ingredients" in all 2, 4-D formulations. Further, a number of references in the published literature indicate that 2, 4-dichlorophenol is the primary degradation product of 2, 4-D in the environment. 2, 4-D is used at rates of tens, if not hundreds, of millions of pounds annually. Thus, millions of workers and consumers are exposed, directly and indirectly, to 2, 4-dichlorophenol every year. Consequently, 2, 4-dichlorophenol, like 2, 4-D, has been the subject of extensive studies to determine all facets of its toxicity. Many of these studies have been published in the open literature. A brief internet search for 2, 4-dichlorophenol resulted hundreds of hits. Among the studies in the literature is a summary of very thorough studies of both the toxicity and carcinogenicity of 2, 4-dichlorophenol conducted by the National Toxicology Program. However, in spite of the obvious potential for significant environmental and human exposure to 2, 4-dichlorophenol and the wealth of data available addressing virtually every SIDS element requested under EPA's HPV Challenge, the present submission is largely uninformative.

Considering the wealth of data available, and the fact that most studies indicate 2, 4-dichlorophenol poses low risk, it is a mystery why The Dow Chemical Company would submit such a poor summary of available studies to address the SIDS elements requested under the HPV Challenge. The following is a list of some of the more obvious deficiencies in this submission.

1. According to EPA guidelines a test plan should present a concise summary of the available information addressing the required SIDS elements and identify additional work that needs to be done. Sponsors have an obligation under their sponsorship commitment to summarize all available hazard-related information, including for endpoints beyond the SIDS. This test plan falls far short in these regards, is poorly organized and, in some cases, does little more than recite EPA guidelines for the SIDS elements, providing no information other than to refer the reader to the robust summaries.
2. Neither the test plan nor the robust summaries describe the most basic of the requested SIDS elements: the structural formula of 2, 4-dichlorophenol.
3. Though environmental and human exposure potential to 2, 4-dichlorophenol is obviously significant, this submission fails to describe sources of possible exposure.
4. With the wealth of published literature available, it is surprising to see that the robust summaries are so brief and uninformative. The data provided are, at best, sketchy and for the most part unreferenced. Of the numerous published references describing the various aspects of 2, 4-dichlorophenol toxicity, fate in the environment, etc. the robust summary references only two. The summaries are also poorly organized, contain a number of pages of headings with none of the supporting data provided, and hence do not fully address the required SIDS elements. The best and most informative section of the robust summaries appears to be photocopy of a SIDS Initial Assessment Profile addressing 2, 4-dichlorophenol.
5. An example of the failure of this submission to meet the requirements of the HPV Challenge is seen in the robust summaries, under the heading Toxicity to Plants, which fails to describe the toxicity of 2, 4-dichlorophenol to aquatic plants.

We appreciate that 2, 4-dichlorophenol is produced and marketed in a number of different forms (salts or esters). The sponsor is correct to point out that, since the salts readily disassociate and the esters readily hydrolyze to yield 2, 4-dichlorophenol, the various forms are essentially equivalent in the environment and/or on exposure to living organisms. Thus, results of studies of one form can be readily extrapolated to predict the behavior or toxicity of other forms. Given this, and the existence of many studies of the various forms of 2, 4-dichlorophenol addressing all facets of its chemistry, environmental fate and toxicity, it is inexcusable that this submission provides so little data to address the required SIDS elements. We find it unacceptable and strongly recommend that EPA not find it adequate to address the HPV Challenge for this chemical.

Thank you for this opportunity to comment.

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